

1. Identification

1.1. Product identifier

Product Identity Islet-Mate™

Alternate Names Islet-Mate™

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use See Technical Data Sheet.

Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name VWR International
2360 Argentia Road
Mississauga, Ontario
Canada L5N 5Z7
Tel 1-800-932-5000

Emergency

24 hour Emergency Telephone No. 855-849-2784

Customer Service: BRTI Life Sciences 888-868-9100
Email: info@brtilifesciences.com

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Skin Irrit. 2;H315 Causes skin irritation.
Eye Dam. 2A;H319 Causes serious eye irritation.
STOT SE 3;H335 May cause respiratory irritation.

2.2. Label elements



Warning

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

[Prevention]:

- P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
- P264 Wash thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves / eye protection / face protection.

[Response]:

- P302+352 IF on skin: Wash with plenty of soap and water.
- P304+312 If inhaled: Call a poison center or doctor / physician if you feel unwell.
- P305+351+338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
- P332+313 If skin irritation occurs: Get medical advice / attention.
- P337+313 If eye irritation persists: Get medical advice / attention.
- P362+364 Take off contaminated clothing and wash it before reuse.

[Storage]:

- P403+233 Store in a well ventilated place. Keep container tightly closed.
- P405 Store locked up.

[Disposal]:

- P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the Hazardous Products Regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Chitosan CAS Number: 0009012-76-4 Synonyms: Chitosan	65 - 85	Not Classified	[1]
Dextran, hydrogen sulfate, sodium salt CAS Number: 0009011-18-1 Synonyms: Dextran, hydrogen sulfate, sodium salt	30 - 60	Skin Irrit. 2;H315 Eye Irrit. 2;H319 STOT SE 3;H335	[1]

The actual concentration or concentration range is withheld as a trade secret.

[1] Substance with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

4.1. Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview	No specific symptom data available. Treat symptomatically. See section 2 for further details.
Inhalation	May cause respiratory irritation.
Eyes	Causes serious eye irritation.
Skin	Causes skin irritation.

Section 5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Do not use: water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.
Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

ERG Guide No. ----

Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet.
Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations.

Section 7. Handling and storage

7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials: No data available.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

Section 8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0009011-18-1	Dextran, hydrogen sulfate, sodium salt	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
0009012-76-4	Chitosan	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit

8.2. Exposure controls

Respiratory

If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes

Wear safety glasses with side shields to protect the eyes. An eye wash station is suggested as a good workplace practice.

Skin

Wear PVC or rubber gloves to keep skin contact to a minimum. Refer to the manufacturer's recommendations regarding the suitability of any gloves used.

Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and chemical properties

Appearance	Clear liquid, white powder, hydrogel when combined.
Odor	Not Provided.
Odor threshold	Not determined
pH	Not Available
Melting point / freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash Point	Not Available
Evaporation rate (Ether = 1)	Not Available
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Available Upper Explosive Limit: Not Available
Vapor pressure (Pa)	Not Available
Vapor Density	Not Available
Specific Gravity	Not Available
Solubility in Water	Not Available
Partition coefficient n-octanol/water (Log Kow)	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Viscosity (cSt)	Not Available

9.2. Other information

No other relevant information.

Section 10. Stability and reactivity**10.1. Reactivity**

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

No hazardous decomposition data available.

Section 11. Toxicological information
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Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Chitosan - (9012-76-4)	No data available	No data available	No data available	No data available	No data available
Dextran, hydrogen sulfate, sodium salt - (9011-18-1)	No data available	No data available	No data available	No data available	No data available

Carcinogen Data

CAS No.	Ingredient	Source	Value
0009011-18-1	Dextran, hydrogen sulfate, sodium salt	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0009012-76-4	Chitosan	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	2A	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	3	May cause respiratory irritation.
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Possible routes of entry: No data available.

Symptoms and effects, both acute and delayed::

No specific symptom data available.
Treat symptomatically.

Inhalation May cause respiratory irritation.
Eyes Causes serious eye irritation.
Skin Causes skin irritation.

Section 12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Chitosan - (9012-76-4)	Not Available	Not Available	Not Available
Dextran, hydrogen sulfate, sodium salt - (9011-18-1)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Available

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

Section 13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

Section 14. Transport information

	TDG (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Regulated	Not Regulated	Not Regulated



Safety Data Sheet Islet-Mate™

SDS Revision
Date: 04/05/2019

14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	TDG Hazard Class: Not Applicable	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable
14.5. Environmental hazards			
IMDG	Marine Pollutant: No;		
14.6. Special precautions for user	Not Applicable		

Section 15. Regulatory information

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all of the information required by those regulations.

Canadian Domestic Substance List (DSL):

Chitosan

Dextran, hydrogen sulfate, sodium salt

Canadian Non-Domestic Substance List (NDSL):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Section 16. Other information

SDS Revision Date 04/05/2019

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

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